

REMARKS

A Request for Continued Examination (RCE) is filed herewith.

The Examiner rejects claims 1, 8-16, 18-20 and 22-25 under 35 U.S.C. §103(a) as being unpatentable over Zucker in view of Abbe et al., U.S. Patent No. 3,159,507; claims 3-6 as being unpatentable over Zucker in view of Abbe et al. and further in view of Kawai et al.; claim 7 as being unpatentable over Zucker in view of Abbe et al. and further in view of Farahmandi et al., claim 17 as being unpatentable over Zucker in view of Abbe et al. and further in view of Kawai et al.; and claim 21 as being unpatentable over Zucker in view of Abbe et al. and further in view of Bohnstedt.

The Examiner states that Zucker teaches a separator material for forming a separator for a lead-acid accumulator/battery wherein the material comprises the first and second layers set forth in the instant claims. The Examiner admits that Zucker does not teach that the second layer is located on a face of the first layer/microporous sheet having such protrusions or that the second layer is located at least at the level of the surface of the first layer/base sheet in the area of the weld joints and does not penetrate into this. The Examiner cites Abbe et al. as disclosing a separator having a first layer in the form of a microporous sheet made of glass fibers and a synthetic resin of hydrophilic character and having a number of protrusions/ribs, each defining an area of increased thickness, on at least one face of a base sheet, and a second layer in the form of a planar fleece material

which is located on a face of the microporous sheet. The Examiner adds that the planar fleece is bonded to at least some of the protrusions/ribs, and Fig. 7 shows that the fleece material can be located at least at the level of the surface of the base sheet in the area of the welded/fused joints and does not penetrate into this. The Examiner concludes that in view of Abbe et al., it would have been obvious to locate the second layer of Zucker on a face of the first layer where the second layer is located at least at the level of the surface of the first layer in the area of the weld joints and does not penetrate into this.

By the accompanying amendment, claim 1 has been amended to recite that the protrusions comprise elevated height protrusions adapted for receiving the welded joints, and wherein the elevated height protrusions including a rib in each of the two side edge areas of the separator material and the welded joints include welded joints on these two side ribs. Support for the amendment can be found in the last sentence of paragraph [0012] of the published document, lines 6-9 and 14-16 of paragraph [0014] of the published document, lines 6-9 of paragraph [0027] of the published document, and in the Figures, for example. Process claim 19 has been similarly amended.

Zucker only mentions that ribs or studs may be present; there is no disclosure or teaching as to the particular location of ribs or studs, or welding of fleece material thereto.

Abbe refers to a ribbed face of the microporous layer and a ribbed agglomerated layer, and discloses that the densified

agglomerated layer may be ribbed or corrugated to define reinforcing zones. However, Abbe does not disclose or suggest the particular location of the ribs, and thus does not disclose or suggest elevated height protrusions including a rib in each of the two side edge areas of the separator material and the welded joints include welded joints on these two side ribs as now recited in the instant claims.

An advantage of this additional feature is that the sheet material can be cut in sections, without the layers coming apart, and these sections can then be conveniently formed into pockets. See paragraph [0014] of the published document.

Neither Kawai et al. nor Farahmandi et al. nor Bohnstedt supplies the aforementioned deficiencies of Zucker and Abbe.

New claims 26-27 have been added to further define the invention. Support for these claims can be found in paragraph [0014] of the published document, for example.

Reconsideration and allowance are respectfully requested in view of the foregoing.

Respectfully submitted,

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